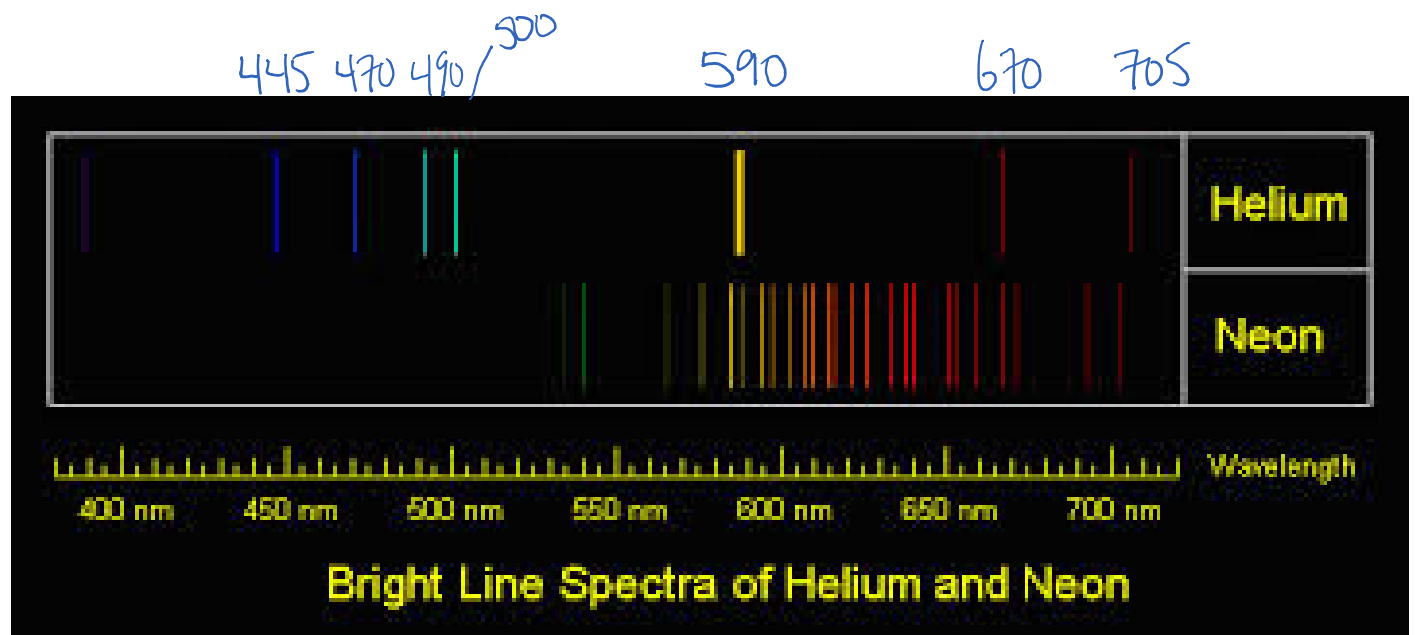
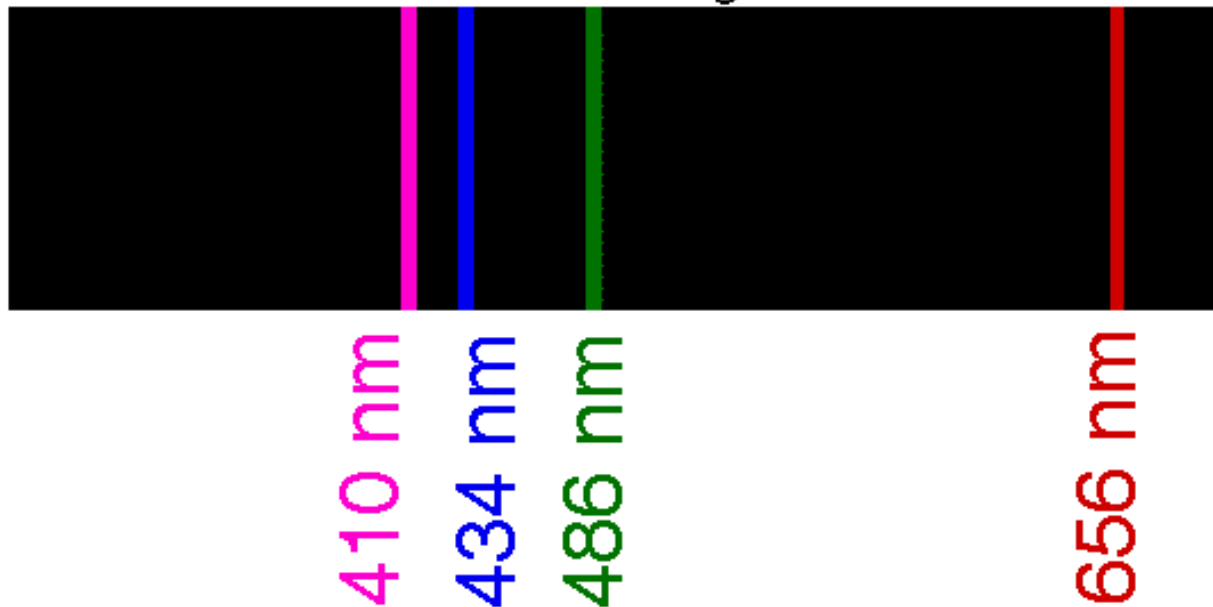


Emission Spectra: H, He, Ne, Mystery

<https://www.youtube.com/watch?v=yD0KVxVfKFo> - Discharge tubes - diff elements, diff colour --> diff spectra if split light

<https://www.youtube.com/watch?v=-VZB3lyU3W0> - Hg spectrum explanation

Hydrogen emission spectrum in the visible region



To see if an element is in a star, compare the lines in the star's spectrum to the lines in an element's spectrum. We can see that Hydrogen is in the following star... what other element seems to be making an appearance too??



Notice that the last 2 spectra (above) are continuous (rainbow) in the background and have dark lines where the bright lines would be from an emission (bright line) spectrum. This is because the star emits most wavelengths, but then the atmosphere's elements absorb energy where their lines would be. This creates an absorption (dark line) spectrum.

Another way astronomers like to look at stellar spectra is in an Intensity/Wavelength graph (below). The down-dips are where the dark lines would be - where wavelengths are absorbed by the atmosphere:

